

Title (en)
AC ELECTRIC MOTOR MONITORING DEVICE AND MONITORING METHOD, AND ELECTRIC MOTOR DRIVE SYSTEM MONITORING DEVICE AND MONITORING METHOD

Title (de)
WECHSELSTROMELEKTROMOTORÜBERWACHUNGSVORRICHTUNG UND ÜBERWACHUNGSVERFAHREN UND ELEKTROMOTORANSTEUERUNGSSYSTEMÜBERWACHUNGSVORRICHTUNG UND ÜBERWACHUNGSVERFAHREN

Title (fr)
DISPOSITIF DE CONTRÔLE ET PROCÉDÉ DE CONTRÔLE DE MOTEUR ÉLECTRIQUE À COURANT ALTERNATIF, ET DISPOSITIF DE CONTRÔLE ET PROCÉDÉ DE CONTRÔLE DE SYSTÈME D'ENTRAÎNEMENT DE MOTEUR ÉLECTRIQUE

Publication
EP 3681035 A4 20210414 (EN)

Application
EP 17924438 A 20170905

Priority
JP 2017031886 W 20170905

Abstract (en)
[origin: EP3681035A1] The present invention drastically reduces the amount of data by treating current flowing through an AC electric motor as a DC amount. The present invention also performs, in a monitoring device, edge processing for determining an abnormality by converting from AC to DC using a simple algorithm. This AC electric motor monitoring device monitors an AC electric motor driven using a drive power supply, and is characterized by converting a current detection value detected by a current detection means of the AC electric motor to a DC amount and outputting a feature amount on the basis of the DC amount.

IPC 8 full level
H02P 29/024 (2016.01); **G01R 31/34** (2020.01); **H02P 23/00** (2016.01)

CPC (source: EP)
G01R 31/34 (2013.01); **H02P 23/00** (2013.01); **H02P 29/024** (2013.01)

Citation (search report)

- [X] EP 2372900 A1 20111005 - HONDA MOTOR CO LTD [JP]
- [XYI] AKIN B ET AL: "DSP-Based Sensorless Electric Motor Fault Diagnosis Tools for Electric and Hybrid Electric Vehicle Powertrain Applications", IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 58, no. 5, 1 June 2009 (2009-06-01), pages 2150 - 2159, XP011248742, ISSN: 0018-9545
- [X] AYDIN I ET AL: "A Simple and Efficient Method for Fault Diagnosis Using Time Series Data Mining", ELECTRIC MACHINES&DRIVES CONFERENCE, 2007. IEMDC '07. IEEE INTERNATIONAL, IEEE, PISCATAWAY, NJ, USA, 1 May 2007 (2007-05-01), pages 596 - 600, XP031114903, ISBN: 978-1-4244-0742-2
- [Y] SHNIBHA R A ET AL: "Smart Technique for Induction Motors Diagnosis by Monitoring the Power Factor Using Only the Measured Current", JOURNAL OF PHYSICS: CONFERENCE SERIES, INSTITUTE OF PHYSICS PUBLISHING, BRISTOL, GB, vol. 364, no. 1, 28 May 2012 (2012-05-28), pages 12062, XP020223144, ISSN: 1742-6596, DOI: 10.1088/1742-6596/364/1/012062
- See also references of WO 2019049188A1

Cited by
WO2022101460A1; CN112486100A; WO2023046572A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3681035 A1 20200715; EP 3681035 A4 20210414; JP 6818155 B2 20210120; JP WO2019049188 A1 20200409; WO 2019049188 A1 20190314

DOCDB simple family (application)
EP 17924438 A 20170905; JP 2017031886 W 20170905; JP 2019540144 A 20170905